Homework based on p. 222 to 234 textbook ----------15 points

1. Assume that the short run cost and demand data given in the table below confront a monopolistic competitor selling a given product and engaged in a given amount of product promotion. Compute the marginal cost and marginal revenue of each unit of output and enter these figures in the table.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Output** | **Total cost** | **Marginal cost** | **Quantity demanded** | **Price** | **Marginal revenue** |
| 0 | $ 25 |  | 0 | $60 |  |
| 1 | 40 | $\_\_\_\_\_ | 1 | 55 | $\_\_\_\_\_ |
| 2 | 45 | \_\_\_\_\_ | 2 | 50 | \_\_\_\_\_ |
| 3 | 55 | \_\_\_\_\_ | 3 | 45 | \_\_\_\_\_ |
| 4 | 70 | \_\_\_\_\_ | 4 | 40 | \_\_\_\_\_ |
| 5 | 90 | \_\_\_\_\_ | 5 | 35 | \_\_\_\_\_ |
| 6 | 115 | \_\_\_\_\_ | 6 | 30 | \_\_\_\_\_ |
| 7 | 145 | \_\_\_\_\_ | 7 | 25 | \_\_\_\_\_ |
| 8 | 180 | \_\_\_\_\_ | 8 | 20 | \_\_\_\_\_ |
| 9 | 220 | \_\_\_\_\_ | 9 | 15 | \_\_\_\_\_ |
| 10 | 265 | \_\_\_\_\_ | 10 | 10 | \_\_\_\_\_ |

(a) At what output level and at what price will the firm produce in the short run? What will be the total profit?

(b) What will happen to demand, price, and profit in the long run?

2. If monopolistically competitive firms have some control over their prices, why don’t they set price above average total cost so they will realize an economic profit in the long run?

3. Explain how monopolistically competitive producers try to improve on the condition of just breaking even in the long run. Is this improvement a benefit for consumers?

4. Consider the following payoff matrix in which the numbers indicate the profit in millions of dollars for a duopoly based either on a high-price or a low-price strategy.

|  |  |  |
| --- | --- | --- |
|  | **Firm A** | |
|  | **High-price** | **Low-price** |
| **High-price** | A = $500  B = $500 | A = $650  B = $300 |
|  | **Firm B** | |
| **Low-price** | A = $300  B = $650 | A = $400  B = $400 |

(a) What will be the result when each firm chooses a high-price strategy?

(b) What will be the result when Firm A chooses a low-price strategy while Firm B maintains a high-price strategy?

(c) What will be the result when Firm B chooses a low-price strategy while Firm A maintains a high-price strategy?

(d) What will be the result when each firm chooses a low-price strategy?

(e) What two conclusions can you draw about collusion?

5. Explain in nontechnical terms why oligopolistic prices may tend to be inflexible.